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(71) Applicant (for all designated States except US): SHOWA DENKO K.K. [JP/JP]; 13-9, Shibadaimon 1-chome, Minato-ku, Tokyo, 1058518 (JP).

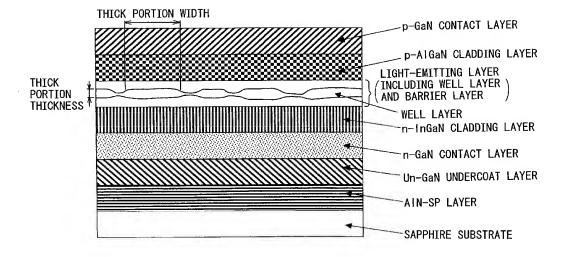
(72) Inventors; and

(75) Inventors/Applicants (for US only): KOBAYAKAWA, Masato [JP/JP]; c/o SHOWA DENKO K.K., 5-1, Yawata Kaigan dori, Ichihara-shi, Chiba, 2900067 (JP). TAKEDA, Hitoshi [JP/JP]; c/o SHOWA DENKO K.K., 5-1, Yawata Kaigan dori, Ichihara-shi, Chiba, 2900067 (JP). MIKI, Hisayuki [JP/JP]; c/o SHOWA DENKO K.K., 5-1, Yawata Kaigan dori, Ichihara-shi, Chiba, 2900067 (JP). SAKU-RAI, Tetsuo [JP/JP]; c/o SHOWA DENKO K.K., 5-1, Yawata Kaigan dori, Ichihara-shi, Chiba, 2900067 (JP).

- (74) Agents: AOKI, Atsushi et al.; A. AOKI, ISHIDA & AS-SOCIATES, Toranomon 37 Mori Bldg., 5-1, Toranomon 3-chome, Minato-ku, Tokyo 1058423 (JP).
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[Continued on next page]

(54) Title: GALLIUM NITRIDE-BASED COMPOUND SEMICONDUCTOR MULTILAYER STRUCTURE AND PRODUCTION METHOD THEREOF



(57) Abstract: An object of the present invention is to provide a gallium nitride compound semiconductor multilayer structure useful for producing a gallium nitride compound semiconductor light-emitting device which operates at low voltage while maintaining satisfactory light emission output. The inventive gallium nitride compound semiconductor multilayer structure comprises a substrate, and an n-type layer, a light-emitting layer, and a p-type layer formed on the substrate, the light-emitting layer having a multiple quantum well structure in which a well layer and a barrier layer are alternately stacked repeatedly, said light-emitting layer being sandwiched by the n-type layer and the p-type layer, wherein the well layer comprises a thick portion and a thin portion, and the barrier layer contains a dopant.

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